

### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-4. (Canceled)

5. (Currently Amended) A method for evaluating a change in susceptibility of HIV to a reverse transcriptase inhibitor for a second anti-HIV therapy comprising:

- (i) receiving a sample from an HIV-infected patient who has been treated with a first anti-HIV therapy;
- (ii) determining whether said sample from said HIV-infected patient comprises an HIV reverse transcriptase having a mutation at the position 194, wherein the wild type amino acid glutamate is mutated to glycine (E194G) as compared to the wild-type HIV strain IIIB/LAI;
- (iii) introducing a reverse transcriptase inhibitor selected from ~~Nevirapine, Efavirenz,~~ Abacavir, Capravirine, Lamivudine, Didanosine, Stavudine, Adefovir, ~~Delavirdine,~~ DPC-086, DPC-083, Tenofovir, and compound 1 (Benzonitrile, 4-[[6-amino-5-bromo-2-[(4-cyanophenyl)-amino]-4-pyrimidinyl-]oxy]-3,5-dimethyl-, compound 1) for said second anti-HIV therapy to said sample from said HIV-infected patient containing said mutation;
- (iv) determining the susceptibility of said HIV having said reverse transcriptase mutation of step (ii) to said HIV reverse transcriptase inhibitor in said sample;
- (v) comparing the anti-HIV drug effectiveness in said sample containing said reverse transcriptase mutation with a sample not containing such said mutation; and
- (vi) correlating the presence of said reverse transcriptase mutation of step (ii) to a change in the susceptibility of said HIV reverse transcriptase inhibitor.

6-10. (Canceled)

11. (Previously Presented) The method of claim 5 further comprising:

- (vii) determining whether said sample from said HIV-infected patient comprises an HIV reverse transcriptase having a mutation E194G compared to the wild-type HIV strain IIIB/LAI, and at least one additional mutation in the HIV reverse transcriptase of the wild-type HIV strain

IIIB/LAI at the position selected from 41, 62, 65, 67, 69, 70, 74, 75, 98, 100, 101, 103, 106, 108, 116, 118, 138, 151, 178, 181, 184, 188, 190, 210, 215, 219, 225, 227, 230, 234, 236, and 238;

(viii) determining the susceptibility of said HIV having said reverse transcriptase mutations of step (vii) to said HIV reverse transcriptase inhibitor in said sample;

(ix) comparing the anti-HIV drug effectiveness in said sample containing said reverse transcriptase mutations with a sample not containing such said mutations; and

(x) correlating the presence of said reverse transcriptase mutations of step (vii) to a change in the susceptibility of said HIV reverse transcriptase inhibitor.